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ENVIRONMENTAL PROTECTION AGENCY

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Interpretation of Lead/Copper Results

Copies of results of samples analyzed by the IEPA laboratory are sent to the PWS and the regional office as they are completed. When samples are first received at the laboratory aliquots for each of the metals or water quality parameters are sent to different areas for processing in batches. Eventually, all the results are entered into the computer, printed out, matched with the collection sheet, and reviewed by the laboratory supervisor. Therefore, you may not receive all of the results for your PWS at one time, even if the samples were submitted together. However, if you have not received all the results for your PWS within three to four weeks of receiving the first results you should call IEPA.

Lead/Copper Tap Samples

The laboratory results include the address where the sample was collected and the sample site number. The lead and copper results are listed in micrograms per liter (ug/l). One hundred micrograms per liter is equal to 0.100 milligrams per liter (mg/l).

The minimum detect level for copper is 100 ug/l, this is the lowest result that will be reported. If the result is equal to or less than the detect limit it will be listed as 100 K. The 'K' is computer language for a less than (<) sign. The action level for copper is 1.3 mg/l or 1300 ug/l.

The minimum detect level for lead is 5 ug/l. If the result is equal to or less than the 5 ug/l it will be listed as 5.0 K. The lead action level is 0.015 mg/l or 15 ug/l. The action level is calculated for each contaminant separately.

If more than ten percent of the samples or the nintieth percentile exceed the action level, then the supply has exceeded the action level. To calculate the nintieth percentile, list either the lead or the copper results from lowest to highest, multiply the number of samples collected by 0.9, and count down to that number. For example, 60 samples $\times 0.9 = 54$; if the fifty-fourth lead sample result is equal to or below 15 ug/l your supply did not exceed the lead action level. Supplies exceeding the action level will receive a letter and a packet from the Agency informing them of the "actions" that must be taken.

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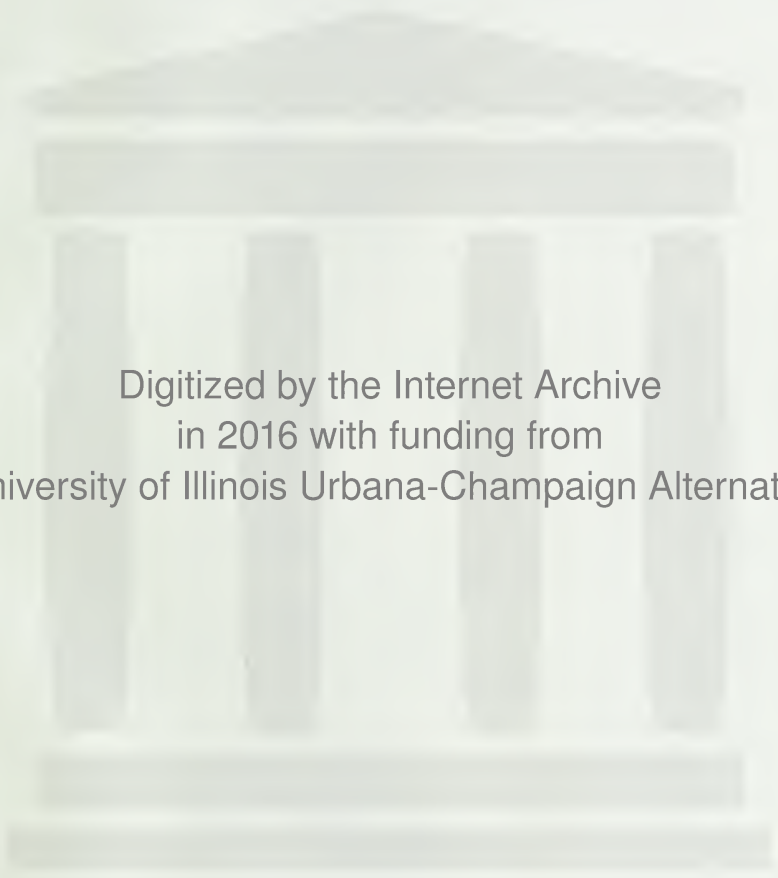
Lead/Copper Entry Point Samples

All supplies in the Lab Fee Program were sent entry point lead/copper sample bottles automatically. These results are required only if the supply exceeds the action level. After December 7, 1992 there is no longer a maximum contaminant level (MCL) for lead or copper. If the entry point lead or copper exceed 15 ug/l or 1300 ug/l respectfully, confirmation samples will automatically be sent. Each supply that exceeds the action level is required to submit a recommendation for source water treatment within six months of exceeding the action level. This recommendation may be that no source water treatment is needed. The IEPA will review the PWS's recommendation, establish a maximum permissible level (MPL) for that supply and either approve the treatment recommendation or issue a review letter. If source water treatment is needed, it must be installed and properly operated within 24 months of the Agency's approval.

Water Quality Samples (WQS)

There are no set levels for the water quality sample results. These results are to be used by the PWS to help design the corrosion control study required if the action level is exceeded. The Agency will send a copy of the results to the PWS and will track collection of the samples for monitoring violations. A PWS must provide two sets of WQS collected during the same six month compliance period that the action level was exceeded. A set of WQS consists of one sample from each entry point into the distribution system and the required number of distribution samples based upon the population served. Example: In Illinois, the first compliance period for medium sized supplies is April - September, 1992 and the second period is October, 1992 - March, 1993 therefore if a supply serving a population of 15,000 with two entry points exceeds the copper action level, two sets of 12 WQS (10 distribution WQS and 2 entry points WQS) or a total of 24 WQS must be collected before September 30, 1992 for the first six-month compliance period and March 31, 1993 for the second compliance period for medium sized supplies.

If you have any further questions, please call your regional office or the Water Quality Unit, Compliance Assurance Section in Springfield (217) 785-0561.



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